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REMARKS

Claims 1-12 and 14-15 are pending in the application.

In the January 10, 2006, office action, claims 1, 3-4, 7-8, 10-11, 14-15 were rejected under 35 U.S.C. 102(e) as being anticipated by Lai (U.S. Patent 6,503,716). Claims 2, 5-6, 9 and 12 were rejected under 35 U.S.C. 103(a) as being unpatentable over Lai (U.S. Patent 6,503,716) in view of Swanson (U.S. Patent 4,548,608). The specific grounds for rejection, and applicants response thereto, are set forth in detail below.

Claim interpretation

The Examiner asserts that the definition of a "highly basic solution" provided in the specification is not to be used in interpreting the claims. Applicants respectfully submit that the Examiner is misapplying the relevant law.

Thus, the Examiner correctly quotes that limitations from the specification generally are not to be read into the claims, citing *In re van Geuns*. However, this well established proposition applies when the specification merely provides examples of what a claim term *might* be. For example, if a claim recites use of Solution A, and the specification does not state that Solution A has a particular concentration, but merely provides examples of a single concentration of Solution A, it generally is incorrect to interpret the claim in a way that limits Solution A to the concentration described in the specification.

It is a quite different matter, however, when the specification contains an explicit definition of a claim limitation. See MPEP 2111.01, which states:

Where an explicit definition is provided by the applicant for a term, that definition will control interpretation of the term as it is used in the claim. *Toro Co. v. White Consolidated Industries Inc.*, 199 F.3d 1295, 1301, 53 USPQ2d 1065, 1069 (Fed. Cir. 1999).

Accordingly, applicants respectfully submit that the explicit definition of the term "highly basic solution" provided in the instant specification should be used in interpreting the claims of the application and cannot be ignored by the Examiner.

Rejections under 35 USC § 102

Claims 1, 3-4, 7-8, 10-11, 14-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Lai. Applicants respectfully traverse.

It is axiomatic that, for a prior art reference to be anticipatory, every element of the claimed invention must be identically shown in a single reference. *In re Bond*, 15 USPQ2d 1566 (Fed. Cir. 1990). Lai fails to teach each and every element of the claimed invention and, accordingly, cannot anticipate the claimed invention.

The Examiner states that Lai teaches extraction of a human hair containing no hair root, and quotes column 26, lines 19-31 in support of this contention. However, the cited passage contains no mention that the hair lacks a root. The only mention of the word “root” that is present in Lai refers to plant roots, and not to the roots of hair. Accordingly, Lai does not describe each and every element of the claimed invention and the rejection should be withdrawn.

Secondly, the Examiner cites Lai as describing use of a solution having a pH of about 10.5 and asserts that this meets the definition of the term “highly basic solution” as that term is used in the instant specification. Applicants respectfully traverse because one skilled in the art would not understand a pH of about 10.5 as being a “highly basic solution.”

The Examiner states that Lai describes using a pH of about 10.5 at column 3, line 26 *et seq.* However, the cited portion of Lai refers only to a pH of about 10. Nevertheless, applicants have further reviewed Lai and note that at column 4, line 52, Lai states that the pH of the solution can be about 7 to about 10.5. In contrast, the present specification states:

In the context of the present invention, a highly basic solution is a solution having a pH of at least 12, and advantageously having a pH of at least about 13.

Accordingly, the pH of the highly basic solution must be at least 12 and no reasonable interpretation of “about 13” could conclude that the pH could be less than 12. The highest pH described by Lai is about 10.5, which one skilled in the art would recognize as being quite different from “at least 12.” To interpret “about 10.5” as encompassing “at least 12” requires the term “about” to stretch 10.5 by not just 0.1 or 0.2 pH units, but by 1.5 pH units, which would be unreasonable. A claim should be given its broadest reasonable interpretation. MPEP § 2111. However, the broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach. *Id.* See also *In re Cortright*, 165 F.3d

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1353, 1359, 49 USPQ2d 1464, 1468 (Fed. Cir. 1999). One skilled in the art would not interpret a highly basic solution, *i.e.* a solution having a pH of *at least* 12, as including a pH of about 10.5. Accordingly, Lai does not describe each and every element of the claimed invention and the applicants respectfully request that the rejection be withdrawn.

Rejection under 35 USC § 103

Claims 2, 5-6, 9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lai (U.S. Patent 6,503,716) in view of Swanson (U.S. Patent 4,548,608). Applicants respectfully traverse.

All claims are presumed initially to be non-obvious. A *prima facie* case of obviousness requires three elements: (1) a teaching or suggestion of all of the claim limitations; (2) a suggestion or motivation to modify or combine the teachings of the applied prior art; and (3) a reasonable expectation of success in reaching the claimed invention. The Examiner bears the initial burden of supporting any *prima facie* assertion of obviousness with adequate facts. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). See MPEP § 2142. The Examiner's allegations regarding the cited references fail to meet this test and, accordingly, the rejection should be withdrawn.

The deficiencies of Lai are set forth above. Thus, Lai fails to teach or suggest methods of obtaining DNA from hair containing no hair root using a highly basic solution. Since Swanson fails to teach or suggest methods of obtaining DNA at all, Swanson fails to cure the deficiencies of Lai. Accordingly, no *prima facie* case of obviousness exists and applicants respectfully request that the rejection be withdrawn.

Moreover, applicants respectfully submit that there would have been no motivation to combine Lai, which is directed to methods of obtaining DNA from biological samples, with Swanson, which is directed not to methods of obtaining DNA from hair, but to methods used in the meat industry for loosening hair from carcasses, skins, hides, and pelts (see abstract). The two references are in such radically different fields that one of ordinary skill in the art would have had no motivation to make the combination cited in the office action. Accordingly, no

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prima facie case of obviousness exists and applicants respectfully request that the rejection be withdrawn.

In addition, the instantly claimed invention is directed to methods of extracting DNA from hair containing no hair root. By contrast, the hair on the carcasses described by Swanson *by definition* contains hair roots, since the hair (including the root) is intact on the carcass prior to treatment and the treatment described by Swanson is aimed at disrupting the root. See column 2, lines 28-31 and column 3, lines 59-64. Accordingly, one of ordinary skill in the art would have had no motivation to look to Swanson for methods of obtaining DNA from hair *lacking* a root.¹

For at least these reasons, applicants respectfully submit that no *prima facie* case of obviousness exists. Accordingly, withdrawal of the rejection respectfully is requested.

¹ In any event, for the reasons set forth above, applicants respectfully submit that one of ordinary skill in the art would not have been motivated to consult Swanson in connection with any method for extracting DNA.

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CONCLUSION

Applicants respectfully submit that the claims are in a condition for allowance. The Examiner is invited to contact the undersigned attorney to resolve any issues, in order to expedite the prosecution of the application. Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact the undersigned to expedite prosecution of the application.

The Commissioner is hereby authorized by this paper to charge any fees during the entire pendency of this application including fees due under 37 C.F.R. §§ 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account 50-3840. **This paragraph is intended to be a CONSTRUCTIVE PETITION FOR EXTENSION OF TIME in accordance with 37 C.F.R. § 1.136(a)(3).**

Respectfully submitted,



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